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PATENT APPLICATION
09/579,331

In The United States Patent and Trademark Office
On Appeal From The Examiner To The Board
of Patent Appeals and Interferences

In re Application of:	Roger V. Beathard et al.
Serial No.:	09/579,331
Filing Date:	May 25, 2000
Group Art Unit:	2642
Examiner:	Thjuan P. Knowlin
Title:	*System and Method for Routing Call Across Call Managers Using a Route Plan*

Mail Stop: Appeal Brief - Patents
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Willie Jiles
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Date: October 5, 2004

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Dear Sir:

Appeal Brief

Appellants have appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner finally rejecting Claims 1-4, 6-16, 18-46, and 48-51, as evidenced in the Final Office Action mailed July 27, 2004 and the Advisory Action mailed September 15, 2004. Appellants filed a Notice of Appeal on September 20, 2004. Appellants respectfully submit this Appeal Brief with the statutory fee of $340.00.

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Real Party In Interest

This application is currently owned by Cisco Systems, Inc., as indicated by an assignment recorded on August 24, 2000, in the Assignment Records of the United States Patent and Trademark Office at Reel 011032, Frames 0329-0032.

Related Appeals and Interferences

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision regarding this appeal.

Status of Claims

Claims 1-4, 6-16, 18-46, and 48-51 are pending in this application and all stand rejected under a final Office Action mailed July 27, 2004. Appellants present Claims 1-4, 6-16, 18-46, and 48-51 for appeal. Appendix A shows all pending claims.

Status of Amendments

The Examiner has entered the amendments that were submitted before the final Office Action mailed July 27, 2004. No further amendments have been submitted.

Summary of Claimed Subject Matter

IP networks and other packet-based networks transmit data (including voice and video data) by placing the data in packets and sending each packet individually to the selected destination. (Page 9, lines 1-4). The technology that allows telecommunications to be transmitted over an IP network (as well as other packet-based networks) may be referred to as Voice over Packet (VoP). IP telephony devices have the capability of encapsulating a user's voice (or other media inputs) into IP packets so that the voice can be transmitted over local area networks, wide area networks, and/or the Internet. IP telephony devices may include telephones, fax machines, computers running telephony software, gateway devices, H.323-compatible devices, or any other device capable of performing telephony functions in an IP network. (Page 9, lines 11-21).

Referring to Figure 1 of the Application, a communication network 10 is shown that includes a plurality of call managers 26 that control one or more IP telephony devices 22. A call manager 26 is an application that controls call processing, routing, telephone features and options (such as call hold, call transfer and caller ID), device configuration, and other telephony functions and parameters within communication network 10. A call manager 26 can control one or more of the IP telephony devices 22 coupled to the same LAN 20 to which it is coupled, and a call manager 26 may also control IP telephony devices 22 located elsewhere in communications network 10. (Page 9, lines 22-32).

The ability of a call manager 26 to control any IP telephony device 22 in communication network 10 allows a call processing environment in which control of devices may distributed dynamically in response to changes in communication network 10. For example, if a call manager 26 goes off-line, the telephony devices 22 controlled by that call manager 26 can connect and register with an alternative call manager 26 in communication network 10. Likewise, if a communication link between a telephony device 22 and a call manager 26 goes down, the telephony device 22 may connect and register with an alternative call manager 26 to which there is an operable communication path. (Page 10, line 27 – Page 11, line 7).

Still referring to Figure 1, when a telephony device 22 or gateway device 24 (which couples external telephony devices to a packet-based network) wishes to establish communications with another device in communication network 10, the device 22 or 24

typically communicates one or more digits to the call manager 26 controlling the device 22 or 24. The digits identify the device with which communication is requested. For example, a telephony device 22 may send a call manager 26 one or more digits indicating the telephone number of an IP telephony device 22 or a non-IP telephony device (such as a PBX device 54 or a PSTN device 68) to initiate a telephone call with the device. Alternatively, a gateway device 24 may communicate one or more digits to a call manager 26 identifying an IP telephony device 22 with which a non-IP telephony device 54, 68 desires to communicate. (Page 13, lines 7-20).

Referring now to Figure 2 of the Application, in particular embodiments, digit inputs received by a call manager 26 are communicated to a digit analysis module 104. Digit analysis module 104 may receive these digits directly from a device process 108 associated with a device 22 or 24, a call control module 102 (which received the digits from a device process 108) or any other suitable process in the same or a different call manager 26. Digit analysis module 104 may translate the digit input it receives into a process ID (PID) associated with a device process 108 that is associated with the device 22 or 24 designated by the received digits. (Page 13, lines 21-29). Alternatively, as described below, the digit input may be translated into the PID of a route list control process that is associated with a gateway device 24. (Page 31, line 32 – Page 32, line 5). Digit analysis module 104 performs this translation using a table look-up in a registration information table 110 or any other suitable process of determining the PID associated with the digits. Digit analysis module 104 communicates the PID to the process that requested the digit analysis. (Page 13, line 21 – Page 14, line 11).

Referring to Figures 6A and 6B of the Application, in particular embodiments, when a telephone number is associated in registration information table 110 with a route list control process (providing access to one or more gateway devices 24), the route list control process has an associated route list 122 that contains an ordered list of one or more route groups 124. For example, route list 122a includes route groups 124a, 124c, and 124b, in the order listed. A route group 124 includes an ordered list of one or more device name/port number pairs 126 associated with one or more gateway devices 24. For example, route group 124a includes Port1, Port2 and Port3 of Gateway1, and Port1, Port2 and Port3 of Gateway2. The ports of a gateway device 24 are the individually addressable physical, logical or virtual resources, such

as trunk lines or logical channels, over which a call may be placed to a non-IP telephony device 54, 68. An individual port may be capable of handling multiple calls. (Page 31, line 30 – Page 32, line 18).

When a telephone number is dialed that is associated with a route list control process in registration information table 110, the call request is sent to the route list control process. The route list control process offers the call to the ports of the gateway devices 24 listed in the first route group 124 of the route list 122 associated with the route list control process, for example, route group 124a of route list 122a. The call is offered to these ports in the order in which the associated port numbers are listed in the route group 124a. The route list control process communicates the call request to each gateway device 24 (indicating the requested port) until one of the gateway devices 24 accepts the call. If no port listed in route group 124a can accept the call, the route list control process begins offering the call to the ports listed in route group 124c, and then to the ports listed in route group 124b. (Page 32, line 19 – Page 33, line 4).

Particular embodiments of the present invention enable calls to be routed to gateway devices based on a route plan. The route plan directs that calls be routed to specific gateway devices 24 based on the destination of the call. The present invention allows a call placed from a telephony device controlled by one call manager 26 to be routed using the route plan to a gateway device 24 controlled by a different call manager 26. The route plan may be implemented by creating the route lists described above, which each contain one or more route groups. These route lists and route groups may be globally used by all call managers 26 in a particular packet-based network regardless of the relative locations of a call manager 26 and a gateway device 24 in a route group. The route lists and route groups may be dynamically updated to reflect changes in the overall route plan or to reflect a change in the call manager that controls a particular gateway device. (Page 4, lines 5-23).

Ground of Rejection to be Reviewed on Appeal

Appellants request that the Board review the Examiner's rejection of Claims 1-4, 6-16, 18-46, and 48-51 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,389,130 issued to Shenoda et al.

Argument

The Examiner's rejection of Claims 1-4, 6-16, 18-46, and 48-51 is improper, and the Board should withdraw the rejection for the reasons given below.

The Examiner's Rejection of Claims 1-4, 6-16, 18-46, and 48-51 under 35 U.S.C. § 102(e) in light of *Shenoda* is Improper

The Examiner rejects Claims 1-4, 6-16, 18-46, and 48-51 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,389,130 issued to Shenoda et al. ("*Shenoda*"). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); M.P.E.P. § 2131. In addition, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claims" and "[t]he elements must be arranged as required by the claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990); M.P.E.P. § 2131 (*emphasis added*). For the reasons given below, Appellants submit that *Shenoda* does not disclose each and every element of the claims of this Application, and that these claims should thus be allowed.

Independent Claims 1, 13, 33, and 44 are Allowable over *Shenoda*

Claim 1 of the Application recites the following:

> A method for call routing, comprising:
> receiving a call request at a first call manager from a first telephony device coupled to a packet-based network, the call request including a telephone number associated with a second telephony device;
> accessing a route list associated with the telephone number to determine a port of a gateway device operable to transmit the call request to the second telephony device, wherein the route list comprises one or more route groups, each route group including a list of one or more ports of one or more gateway devices; and
> communicating the call request to a second call manager controlling the gateway device included in the route list.

Claims 13, 33, and 44 recites similar, although not identical, limitations.

The Examiner states that *Shenoda* discloses all the limitations of Claim 1 and, more specifically, that it discloses a "route list [that] comprises one or more route groups, each route group including a list of one or more ports of one or more gateway devices" (citing *Shenoda*, Col. 6; Line 39 – Col. 7, line 12). Although, *Shenoda* discloses global routing tables, system routing tables, and management routing tables (one or more of which the Examiner appears to equate to the claimed "route list"), none of these elements discloses a route list *that includes route groups*. *Shenoda* discloses that the routing tables include telephone information that can be used to route telephone calls. (*Shenoda*, Col. 6; Lines 40-42). However, *Shenoda* fails to disclose a route list that comprises *one or more route groups, each route group including a list of one or more ports of one or more gateway devices*, as recited in amended Claim 1 (and similarly, although not identically, in amended Claims 13, 33, and 44).

In rejecting Claims 1, 13, 33, and 44, Appellants submit that the Examiner fails to consider each and every word of these claims. "All words in a claim must be considered in judging the patentability of that claim against the prior art." M.P.E.P. § 2143.03 (citing *In re Wilson*, 424 F.2d 1382, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970)). In judging the patentability of Claims 1, 13, 33, and 44, the Examiner fails to consider the recitation of "route groups" in these claims. As required by Claims 1, 13, 33, and 44, the route list must comprise route groups that themselves contain "one or more ports of one or more gateway devices." However, the Examiner appears (at least in the Final Office Action) to rely on the same element of *Shenoda* (routing tables) to disclose both the route list and route group limitations of Claims 1, 13, 33, and 44. *Shenoda* cannot teach route lists that contain route groups when the same element (routing tables) is used to teach both route lists and route groups (since the element cannot contain itself).

Even assuming, for the purposes of argument, that the "telephone number information" included in the routing tables of *Shenoda* is equivalent to the "one or more ports of one or more gateway devices" included in the route groups recited in Claims 1, 13, 33, and 44, there is still no disclosure of a route list that comprises route groups that contain this information. If the routing tables of *Shenoda* are being used by the Examiner in an attempt

to show a disclosure of route lists, then Appellants argue that there is no disclosure that these routing tables contain any route groups, which themselves contain one or more ports of one or more gateway devices. In other words, there is no disclosure of any grouping of one or more ports of one or more gateway devices into route groups within a route list. On the other hand, if the routing tables of *Shenoda* are being used by the Examiner in an attempt to show a disclosure of route groups, then Appellants argue that there is no disclosure that these routing tables are themselves included in route lists.

In response to the above arguments that the routing tables of *Shenoda* cannot be both route lists and route groups, the Examiner in the Advisory Action indicates that the routing tables disclose the claimed route lists and that system controllers 430 and 438 of *Shenoda* are a disclosure of the claimed route groups. However, it is quite clear that the system controllers (which are described at Col 6; line 53 – Col. 7; line 13 of *Shenoda*) are not route groups. Controllers 430 and 438 are actual components in a network between which data can be routed. They are not route groups as claimed. Furthermore, *Shenoda* discloses that the controllers may include routing tables, which are used to provide information to the controllers that is used to route data between different controllers. However, the Examiner also argues that the routing tables are the claimed route lists, which are required by the claims to include route groups. Appellants submit that even if logic was suspended to allow a system controller to be a route group, according to the Examiner, that "route group" (controller) would include a "route list" (routing table) – not vice versa, as required by the claims.

For at least these reasons, amended Claims 1, 13, 33, and 44 are allowable over *Shenoda*. Therefore, Appellants respectfully request that the rejection of Claims 1, 13, 33, and 44 be overturned.

The Dependent Claims are Also Allowable over *Shenoda*

Dependent Claims 2-4, 6-12, 14-16, 18-32, 34-43, 45-56, and 48-51 depend from, and incorporate all of the limitations of independent claims 1, 13, 33, or 44, which are allowable for the reasons discussed above. Therefore, dependent Claims 2-4, 6-12, 14-16, 18-32, 34-

43, 45-56, and 48-51 are allowable as they depend from allowable base claims. In addition to their dependence on allowable base claims, at least dependent Claims 3-4, 11, 15-16, 18, 23-24, 34-35, 37, 45-46, and 48 are also allowable because they each contain additional limitations not disclosed in *Shenoda*, as described below.

Claims 3, 15, 34, and 45 are Allowable over *Shenoda*

Claim 3 recites, in part, "accessing a registration information table to determine a process identification (PID) of a route list control process." Claims 15, 34, and 45 recite similar, although not identical, limitations. The Examiner states that *Shenoda* discloses this limitation (citing *Shenoda*, Col. 5; Lines 32-38, 51-63, and Col. 6; Lines 39-52). These cited passages from *Shenoda* merely disclose that a multi-purpose switch uses source and destination information to establish a connection over an ATM network, where an ATM cell header can include VPI and VCI information used to route calls. *Shenoda* fails to disclose a process identification (PID) of a route control process, let alone accessing a registration information table to determine the PID, as recited in Claim 3, and similarly, although not identically, in Claims 15, 34, and 45. For at least this additional reason, Claims 3, 15, 34, and 45 are allowable over *Shenoda*. Therefore, Appellants respectfully request that the rejection of Claims 3, 15, 34, and 45 be overturned.

Claims 4, 16, 35, and 46 are Allowable over *Shenoda*

Claim 4 recites, in part, accessing a route list to obtain the device name and a port number of the gateway device. Claims 16, 35, and 46 recite similar, although not identical, limitations. The Examiner states that *Shenoda* discloses this limitation (citing *Shenoda*, Col. 5; Lines 32-38, 51-63, and Col. 6; Lines 39-52). As described above, these passages of *Shenoda* merely discloses that a multi-purpose switch uses source and destination information to establish a connection over an ATM network, where an ATM cell header can include VPI and VCI information used to route calls. In fact, *Shenoda* fails to disclose a route list containing a device name and a port number for a gateway device, let alone accessing a route list to obtain the device name and a port number of the gateway device. For at least this additional reason, Claims 4, 16, 35, and 46 are allowable over *Shenoda*.

Therefore, Appellants respectfully request that the rejection of Claims 4, 16, 35, and 46, as well as all claims that depend from Claims 4, 16, 35, and 46, be overturned.

Claims 6, 11, 18, 37, and 48 are Allowable over *Shenoda*

Claim 6 recites, in part, accessing a device name mapping table using the device manager to determine a PID of a first device process executed by the second call manager and controlling the gateway device. Claims 11, 18, 37, and 48 recite similar, although not identical, limitations. The Examiner states that *Shenoda* discloses this limitation (citing *Shenoda*, Col. 9-10; Lines 66-28). The cited passage of *Shenoda* merely discloses: (1) that permanent virtual connections (PVCs) can be maintained between multiple service modules and a system controller, (2) that an initial address message (IAM) is generated by a service switching point and used to determine a route for the call, and (3) a call manager uses a resource manager to determine an egress interface for the call. *Shenoda* fails to disclose a *device mapping table*, let alone accessing the device mapping table to determine a process identification of a first device process executed by a second call manager, as recited in Claim 6, and similarly, although not identically, in Claims 11, 18, 37, and 48. For at least this additional reason, Claims 6, 11,18, 37, and 48 are allowable over *Shenoda*. Therefore, Appellants respectfully request that the rejection of Claims 6, 11, 18, 37, and 48, as well as all claims that depend from Claims 6, 18, 37, and 48, be overturned.

Claim 23 is Allowable over *Shenoda*

Claim 23 recites, in part, a device manager operable to receive a signal indicating that a new gateway device has registered with the call manager. The Examiner states that *Shenoda* discloses this limitation (again citing *Shenoda*, Col. 9-10; Lines 66-28). In fact, *Shenoda* merely discloses: (1) that permanent virtual connections (PVCs) can be maintained between multiple service modules and a system controller, (2) that an initial address message (IAM) is generated by a service switching point and used to determine a route for the call, and (3) a call manager uses a resource manager to determine an egress interface for the call. *Shenoda* fails to disclose a signal indicating that a new gateway device has registered with the call manager, as recited in Claim 23. For at least this additional reason, Claim 23 is

allowable over *Shenoda*. Therefore, Appellants respectfully request that the rejection of Claim 23 be overturned.

Claim 24 is Allowable over *Shenoda*

Claim 24 of the present invention recites:

> The call manager of Claim 18, wherein the device manager is further operable to:
>
> receive a signal indicating that a gateway device is no longer under the control of the call manager;
>
> delete the device name and associated PID of the gateway device from the device name mapping table; and
>
> communicate a deletion signal to the second call manager coupled to the packet-based network indicating that the device name and associated PID should be deleted from a device name mapping table of the second call manager.

The Examiner states that *Shenoda* discloses these limitations (again citing *Shenoda*, Col. 9-10; Lines 66-28). As discussed above, the cited passage of *Shenoda* merely discloses: (1) that permanent virtual connections (PVCs) can be maintained between multiple service modules and a system controller, (2) that an initial address message (IAM) is generated by a service switching point and used to determine a route for the call, and (3) a call manager uses a resource manager to determine an egress interface for the call. However, *Shenoda* fails to disclose: (1) a signal indicating that a gateway device is no longer under the control of the call manager, and (2) a deletion signal indicating that the device name and associated PID should be deleted from a device name mapping table of the second call manager, as disclosed in Claim 24. Furthermore, *Shenoda* fails to disclose a device manager operable to delete the device name and associated PID of the gateway device from the device mapping table, as recited in Claim 24. For at least these additional reasons, Claim 24 is allowable over *Shenoda*. Therefore, Appellants respectfully request that the rejection of Claim 24 be overturned.

Claim 25 is Allowable over *Shenoda*

Claim 25 recites, in part, a device manager operable to receive a signal indicating that a third call manager has come on-line in the packet-based network. The Examiner states that *Shenoda* discloses this limitation (citing *Shenoda*, Col. 6; Lines 39-46; Col. 10; Lines 11-28,

52-58). *Shenoda* discloses global routing tables and system routing tables that contain telephone information that can be used to route telephone calls. (*Shenoda*, Col. 6; Lines 39-46). Also, *Shenoda* merely discloses that an initial address message (IAM) is generated by a service switching point and used to determine a route for the call and that a call manager uses a resource manager to determine an egress interface for the call. (*Shenoda*, Col. 10; Lines 17-24). However, *Shenoda* fails to disclose a signal indicating that a third call manager has come on-line in the packet-based network, as recited in Claim 25. For at least this additional reason, Claim 25 is allowable over *Shenoda*. Therefore, Appellants respectfully request that the rejection of Claim 25 be overturned.

Claim 26 is Allowable over *Shenoda*

Claim 26, as amended, recites, a device manager operable to receive a signal indicating that the second call manager has gone off-line and delete the device name and associated PID of the gateway devices controlled by the second call manager. The Examiner states that *Shenoda* discloses this limitation (citing *Shenoda*, Col. 2; Lines 39-58). As discussed above, the cited passage of *Shenoda* discloses that if a destination telephone is not coupled to a service switching point (SSP), the call information is routed to the appropriate SSP to relay the call. (Shenoda, Col. 2; Lines 47-49). However, *Shenoda* fails to disclose a signal indicating that a second call manager has gone-off line, as recited in Claim 26. For at least this additional reason, Claim 26 is allowable over *Shenoda*. Therefore, Appellants respectfully request that the rejection of Claim 26 be overturned.

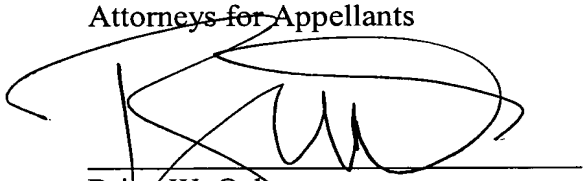
Conclusion

Appellants have demonstrated that the present invention, as claimed, is clearly distinguishable over the prior art cited by the Examiner. Therefore, Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

Appellants have enclosed a check in the amount of $340.00 for this Appeal Brief. Appellants believe no additional fees are due. The Commissioner is hereby authorized to charge any fee and credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P.
Attorneys for Appellants



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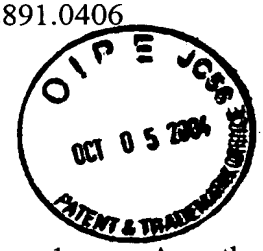

Appendix A: Claims on Appeal

1. A method for call routing, comprising:

receiving a call request at a first call manager from a first telephony device coupled to a packet-based network, the call request including a telephone number associated with a second telephony device;

accessing a route list associated with the telephone number to determine a port of a gateway device operable to transmit the call request to the second telephony device, wherein the route list comprises one or more route groups, each route group including a list of one or more ports of one or more gateway devices; and

communicating the call request to a second call manager controlling the gateway device included in the route list.

2. The method of Claim 1, wherein:

the packet-based network comprises an Internet Protocol (IP) network;

the first telephony device comprises an IP telephony device; and

the second telephony device comprises a non-IP telephony device.

3. The method of Claim 1, further comprising:

accessing a registration information table to determine a process identification (PID) of a route list control process executed by the first call manager and associated with the telephone number; and

communicating the call request to the route list control process using the PID, the route list control process operable to access the route list.

4. The method of Claim 1, wherein accessing a route list associated with the telephone number comprises accessing a route list to obtain the device name and a port number of the gateway device.

5. (Cancelled)

6. The method of Claim 4, further comprising:

communicating the device name of the gateway device to a device manager executed by the first call manager; and

accessing a device name mapping table using the device manager to determine a PID of a first device process executed by the second call manager and controlling the gateway device.

7. The method of Claim 6, wherein communicating the call request to a second call manager controlling the gateway device comprises communicating the call request and the port number to the first device process.

8. The method of Claim 7, further comprising:

communicating the call request and the port number from the first device process to the gateway device;

receiving a call proceed signal from the gateway device indicating acceptance of the call request; and

communicating the call proceed signal from the second call manager to the first call manager.

9. The method of Claim 8, further comprising establishing media streaming between the first telephony device and the gateway device in response to receiving the call proceed signal from the second call manager.

10. The method of Claim 7, further comprising:

communicating the call request and the port number from the first device process to the gateway device;

receiving a call denial signal from the gateway device indicating a denial of the call request; and

communicating the call denial signal from the second call manager to the first call manager.

11. The method of Claim 10, further comprising:

accessing the route list to obtain the device name and a port number of a second gateway device;

communicating the device name of the second gateway device to the device manager executed by the first call manager;

accessing a device name mapping table using the device manager to determine a PID of a second device process executed by the second call manager and controlling the second gateway device; and

communicating the call request and the port number to the second device process.

12. The method of Claim 10, further comprising:

accessing the route list to obtain a second port number of the gateway device; and

communicating the call request and the second port number to the first device process.

13. A call manager coupled to a packet-based network and operable to control a plurality of telephony devices, comprising:

a first device process controlling a first telephony device and operable to receive a call request from the first telephony device, the call request including a telephone number associated with a second telephony device;

a call control module operable to receive the call request from the first device process; and

a route list control process associated with the telephone number and operable to:

receive the call request from the call control module;

access an associated route list to determine a port of a gateway device operable to transmit the call request to the second telephony device, wherein the route list comprises one or more route groups, each route group including a list of one or more ports of one or more gateway devices; and

communicate the call request to a second call manager coupled to the packet-based network and controlling the gateway device included in the route list.

14. The call manager of Claim 13, wherein:

the packet-based network comprises an Internet Protocol (IP) network;

the first telephony device comprises an IP telephony device; and

the second telephony device comprises a non-IP telephony device.

15. The call manager of Claim 13, further comprising:

a digit analysis module operable to receive from the call control module the telephone number included in the call request, the digit analysis module further operable to access a registration information table to determine a process identification (PID) of the route list control process associated with the telephone number and to communicate the PID to the call control module; and

wherein the call control module communicates the call request to the route list control process using the PID.

16. The call manager of Claim 13, wherein the route list control process is operable to access the route list to obtain a device name and a port number of the gateway device.

17. (Cancelled)

18. The call manager of Claim 16, further comprising a device manager operable to:

receive the device name of the gateway device from the route list control process;

access a device name mapping table to determine a PID of a second device process executed by the second call manager and controlling the gateway device; and

communicate the PID of the second device process to the route list control process.

19. The call manager of Claim 18, wherein the route list control process is operable to communicate the call request and the port number to the second device process using the PID.

20. The call manager of Claim 19, wherein:

the route list control process is further operable to receive a call proceed signal from the second device process and to communicate the call proceed signal to the call control module; and

the call control module is operable to establish media streaming between the first telephony device and the gateway device in response to receiving the call proceed signal.

21. The call manager of Claim 19, wherein the route list control process is operable to:

receive a call denial signal from the second device process;

access the route list to obtain the device name and a port number of a second gateway device;

communicate the device name of the second gateway device to the device manager;

receive from the device manager a PID of a third device process executed by the second call manager and controlling the second gateway device; and

communicate the call request and the port number to the third device process.

22. The method of Claim 19, wherein the route list control process is operable to:

receive a call denial signal from the second device process;

access the route list to obtain a second port number of the gateway device; and

communicate the call request and the second port number to the second device process.

23. The call manager of Claim 18, wherein the device manager is further operable to:

receive a signal indicating that a new gateway device has registered with the call manager, the signal including the device name of the gateway device and the PID of the device process controlling the gateway device;

store the device name and associated PID in the device name mapping table; and

communicate the device name and associated PID to the second call manager coupled to the packet-based network.

24. The call manager of Claim 18, wherein the device manager is further operable to:

receive a signal indicating that a gateway device is no longer under the control of the call manager;

delete the device name and associated PID of the gateway device from the device name mapping table; and

communicate a deletion signal to the second call manager coupled to the packet-based network indicating that the device name and associated PID should be deleted from a device name mapping table of the second call manager.

25. The call manager of Claim 18, wherein the device manager is further operable to:

receive a signal indicating that a third call manager has come on-line in the packet-based network; and

communicate the device name and associated PID of each gateway device controlled by the call manager in which device manager is executing to the third call manager.

26. The call manager of Claim 18, wherein the device manager is further operable to:

receive a signal indicating that the second call manager has gone off-line; and

delete the device name and associated PID of the gateway devices controlled by the second call manager.

27. The call manager of Claim 13, further comprising:

a local route plan database accessible by the route list control process; and

a route plan manager operable to download one or more route lists from a global route plan database coupled to the packet-based network and further operable to store the route lists in the local route plan database for access by the route list control process.

28. The call manager of Claim 27, further comprising a plurality of route list control processes, each route list control process associated with a route list stored in the local route plan database.

29. The call manager of Claim 28, wherein the route plan manager is further operable to:

receive a route plan change notification indicating a modification of a route list in the global route plan database;

delete the route list from the local route plan database;

download the modified route list from the global route plan database; and

store the modified route list in the local route plan database.

30. The call manager of Claim 29, wherein the route plan manager is further operable to instruct the route list control process associated with the modified route plan to unregister with the call control module after the route plan change notification is received and further operable to instruct the route list control process to re-register with the call control module after the modified route list is stored in the local route plan database.

31. The call manager of Claim 28, wherein the route plan manager is further operable to:

receive a route plan change notification indicating the creation of a new route list in the global route plan database;

download the new route list from the global route plan database;

store the new route list in the local route plan database;

create a route list control process associated with the new route list; and

instruct the route list control process associated with the new route list to register with the call control module.

32. The call manager of Claim 28, wherein the route plan manager is further operable to:

receive a route plan change notification indicating the deletion of a route list in the global route plan database;

delete the route list from the local route plan database; and

instruct the route list control process associated with the deleted route list to unregister with the call control module.

33. Call manager software embodied in a computer-readable medium and operable to perform the following steps:

receive a call request from a first telephony device coupled to a packet-based network, the call request including a telephone number associated with a second telephony device;

access a route list associated with the telephone number to determine a port of a gateway device operable to transmit the call request to the second telephony device, wherein the route list comprises one or more route groups, each route group including a list of one or more ports of one or more gateway devices; and

communicate the call request to a second call manager software controlling the gateway device included in the route list.

34. The call manager software of Claim 33, further operable to:

access a registration information table to determine a process identification (PID) of a route list control process executed by the first call manager software and associated with the telephone number; and

communicate the call request to the route list control process using the PID, the route list control process operable to access the route list.

35. The call manager software of Claim 33, further operable to access the route list to obtain the device name and a port number of the gateway device.

36. The call manager software of Claim 35, further operable to access one or more of the route groups included in the route list to obtain the device name and port number of the gateway device.

37. The call manager software of Claim 35, further operable to:

communicate the device name of the gateway device to a device manager executed by the first call manager software; and

access a device name mapping table using the device manager to determine a PID of a first device process executed by the second call manager software and controlling the gateway device.

38. The call manager software of Claim 37, wherein communicating the call request to second call manager software controlling the gateway device comprises communicating the call request and the port number to the first device process.

39. The call manager software of Claim 38, further operable to receive a call proceed signal from the first device process.

40. The call manager software of Claim 39, further operable to establish media streaming between the first telephony device and the gateway device in response to receiving the call proceed signal from the first device process.

41. The call manager software of Claim 38, further operable to receive a call denial signal from the first device process.

42. The call manager software of Claim 41, further operable to:

access the route list to obtain the device name and a port number of a second gateway device;

communicate the device name of the second gateway device to the device manager executed by the first call manager software;

access a device name mapping table using the device manager to determine a PID of a second device process executed by the second call manager software and controlling the second gateway device; and

communicate the call request and the port number to the second device process.

43. The call manager software of Claim 41, further operable to:

access the route list to obtain a second port number of the gateway device; and

communicate the call request and the second port number to the first device process.

44. A call manager coupled to a packet-based network and operable to control a plurality of telephony devices, comprising:

means for receiving a call request from a first telephony device controlled by the call manager, the call request including a telephone number associated with a second telephony device;

means for accessing a route list to determine a port of a gateway device operable to transmit the call request to the second telephony device, wherein the route list comprises one or more route groups, each route group including a list of one or more ports of one or more gateway devices; and

means for communicating the call request to a second call manager coupled to the packet-based network and controlling the gateway device included in the route list.

45. The call manager of Claim 44, further comprising:

means for accessing a registration information table to determine a process identification (PID) of the means for accessing the route list; and

means for communicating the call request to the means for accessing the route list using the PID.

46. The call manager of Claim 44, wherein the means for accessing the route list is operable to obtain a device name and a port number of the gateway device from the route list.

47. (Cancelled)

48. The call manager of Claim 46, further comprising:

means for receiving the device name of the gateway device;

means for accessing a device name mapping table to determine a PID of a second device process executed by the second call manager and controlling the gateway device; and

means for communicating the call request and the port number to the second device process using the PID.

49. The call manager of Claim 48, further comprising:

means for receiving a call proceed signal from the second device process; and

means for establishing media streaming between the first telephony device and the gateway device in response to receiving the call proceed signal.

50. The call manager of Claim 48, further comprising:

means for receiving a call denial signal from the second device process;

means for accessing the route list to obtain the device name and a port number of a second gateway device;

means for obtaining a PID of a third device process executed by the second call manager and controlling the second gateway device; and

means for communicating the call request and the port number to the third device process.

51. The call manager of Claim 48, further comprising:

means for receiving a call denial signal from the second device process;

means for accessing the route list to obtain a second port number of the gateway device; and

means for communicating the call request and the second port number to the second device process.

Appendix B: Evidence

NONE

Appendix C: Related Proceedings

NONE